

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (currently amended) A computer-implemented method, ~~comprising: for~~ decompressing a trie including a node section containing a plurality of nodes, the method comprising, including:  
     evaluating a first node of the trie;  
     identifying a tag bit in a determining that the first node of the node section, the tag bit includes a tag flag having a setting for indicating that a multiple tagging in tag field, that does not contain the tag flag, is attached to the first node;  
     identifying a , and in response evaluating settings in the multiple tag mask field in the first node based on the setting of the tag bit, the tag mask field being attached to the first node and including a plurality of bits;  
     , and for each setting that indicates a tag, associating the first generating node with a category corresponding to that tag information based on settings of each bit in the tag mask field;  
     evaluating a second node of the trie; and  
     determining that the second node includes a tag flag having a setting indicating that a multiple tag field is not attached to the second node and  
     decompressing the trie based on the node information.
2. (currently amended) The method of claim 1 ~~wherein decompressing the trie~~ further ~~comprises, comprising~~ evaluating a ~~the~~ tag information field to determine that the trie was constructed to have at least one node with a multiple tag field.

3. (currently amended) The method of claim 1 wherein the ~~multiple-tag~~ mask field comprises a bitmask, and wherein evaluating each setting in the ~~multiple-tag~~ mask field comprises checking the value of each bit in the bitmask.
4. (original) The method of claim 3 further comprising, evaluating information in a header of the trie to determine a size of the bitmask.
5. (currently amended) The method of claim 1 ~~wherein decompressing the trie further comprises,~~ comprising checking a value field to determine which tags have values associated therewith.
6. (previously presented) The method of claim 1 wherein at least one tag has a value associated therewith, and further comprising, checking a value size array field to determine a size for each value associated with a tag.
7. (currently amended) The method of claim 1 ~~wherein decompressing the trie further comprises,~~ comprising checking a value size array field to determine which tags have values associated therewith.
8. (original) The method of claim 7 further comprising, checking the value size array field to determine a size for each value associated with a tag.
9. (previously presented) The method of claim 1 wherein the first node includes at least one partial enumeration count.
10. (previously presented) The method of claim 1 wherein the first node includes a partial enumeration count for at least one of the tags.

11. (original) A computer-readable medium having computer-executable instructions for performing the method of claim 1.

12. (withdrawn) A computer-readable medium storing information for enabling a device to perform a process, the process comprising:

determining whether nodes of a trie have respective tag flag settings that indicate whether or not the respective nodes have respective separate multi-tag fields attached thereto, where some of the processed nodes have a tag flag and a separate multi-tag field, and some of the processed nodes have a tag flag and do not have a separate multi-tag field;

in response to determinations that nodes have respective tag flag settings indicating that those nodes have respective multi-tag fields attached thereto, accessing settings in the multi-tag fields of those nodes;

in response to determinations that nodes have tag flag settings indicating that the nodes do not have respective multi-tag fields attached thereto, handling those nodes in accordance with such determinations.

13. (withdrawn) A computer-readable medium according to claim 12, where the process further comprises evaluating a flag of the trie to determine whether the trie is of a type that has multi-tag fields.

14. (withdrawn) A computer-readable medium according to claim 12, where the process further comprises using a mask to determine which tags of the multi-tag fields are active.

15. (withdrawn) A device configured to be capable of performing a process, the process comprising:

accessing a trie comprised of nodes, where the nodes comprise respective tag flags, where some of the nodes further comprise respective multi-tag fields, and where some of the nodes do not further comprise multi-tag fields;

determining whether or not nodes have respective multi-tag fields attached thereto by evaluating settings of the respective nodes' tag flags; and

for those of the nodes that have been determined to have multi-tag fields, using the multi-tag fields of those nodes to determine whether those nodes belong to various plural node categories.

16. (withdrawn) A device configured according to claim 15, wherein the process further comprises: for those of the nodes that have been determined to not have multi-tag fields, not determining whether those node belong to various plural node categories.

17. (withdrawn) A device configured according to claim 15, wherein the multi-tag fields vary in size.

18. (withdrawn) A device configured according to claim 15, wherein the process further comprises determining which tags in the multi-tag fields are valid.